age limit although the donor should be free of infectious or malignant disease. The homograft tissue is procured by removing a portion of the temporal bone from the floor of the middle cranial fossa, which includes the middle ear and external auditory canal. Techniques for sterilizing, processing and preserving ear transplant tissue are established and such banked tissue is now available to ear surgeons.

The use of otologic homograft tissue is an attractive alternative because reconstruction using various types of plastics and metals has not been very successful. Extrusion of alloplastic materials in the middle ear is fairly common. The results of homograft ear operations during the past five years are most encouraging. There are no reports of extrusion or rejection of otologic homograft tissue.

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The Cytotoxic Test for Diagnosing Food Allergies

THERE HAVE BEEN a number of efforts to devise and utilize clinical methods for diagnosing food allergens: Rowe, Rinkel, Randolph, Lee and others have made contributions. Nevertheless laboratory methods seemed desirable due to the large amount of time used in the clinical methods, except for skin tests, which carry about 75 percent error. In 1956 Black proposed the use of the cytotoxic reaction for diagnosis of food allergy. This presumably was based on the experiments of Byron H. Wacksman.

We took up the test in 1957, gradually refining the technique so that it is now fairly reliable, the main remaining difficulties being the changing of the patients' diet and the fact that diagnoses are often multiple.

As we do it, the cytotoxic test consists of observing with the microscope the reactions of the blood cells (principally the activity of the neutrophils) to the food extracts in the presence of the patient's serum. All glassware which comes in contact with blood cells must be chemically clean and "silicated." Known accurate amounts of food extracts are used (0.1 mg of the powder per ml of pyrogen-free water overnight, then decanted and further diluted). Rings of vaseline the size of the coverslips are put three per slide to hold (1) the food extract; (2) the cells and serum, and (3) the coverslips. After an hour the cells are observed and the results recorded for each food.

After 15 years of use on almost 5,000 patients, and 250,000 individual tests, many and even some spectacular cures have been accomplished.

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Acupuncture and Deafness

INFORMAL CLAIMS from China during the past two years have engendered considerable enthusiasm among patients for using acupuncture to treat sensorineural hearing losses. Experience in the United States is quite limited but of the several attempts at treatment by persons generally recognized as experienced acupuncturists, none have been successful when documented before and after by audiograms. Thus, while we can in no way state with certainty that acupuncture does not help deafness, the present evidence is negative.

It has been argued that such failures probably result from the use of the more traditional acupuncture points instead of newer ones discovered by China's Barefoot Doctors. They may be correct, but since one of these new points requires that a needle be inserted between C_1 and C_2 to a depth of 3 to 4 inches, it probably will be a long time indeed before practitioners of a more conservative bent find out.

F. BLAIR SIMMONS, MD

Diagnostic Uses of Immunoglobulins

OTOLARYNGOLOGISTS AND IMMUNOLOGISTS are investigating the presence, quantity, and function of immunoglobulins in the respiratory tract. These immunoproteins, IgG, IgA, IgM, IgD and IgE, are part of the gamma and beta fractions of serum and are also present on mucous membrane surfaces and in various body fluids. The technique most commonly used to quantitate these immunoglobulins (except IgE) is termed "single radial diffusion," implying incorporation of a monospecific antibody in the agar used for immunodiffusion studies; and serum levels of the immunoglobulins have been determined throughout the human life span. By varying antibody concentration in